EXHIBIT A

MICHAEL R. ROSEN

Curriculum Vitae

Professional Address: Michael R. Rosen, M.D.
Gustavus A. Pfeiffer Professor of Pharmacology
Professor of Pediatrics
Director, Center for Molecular Therapeutics
College of Physicians and Surgeons of Columbia University
Department of Pharmacology
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New York, N.Y. 10028

Birthdate and Place: October 8, 1938
New York, New York

Marital Status: Married

Education

Wesleyan University, B.A., 1960

State University of New York, Downstate Medical Center, M.D., 1964

Medical Licensure - New York, 1965

Traineeship

Internship (mixed) Medicine and Surgery - Montefiore Hospital, July 1964 - June 1965

Resident in Medicine - Montefiore Hospital, July 1965 - July 1966, August 1968 -June 1969

Resident in Cardiology - Montefiore Hospital, July 1969 - June 1970

Postdoctoral Fellow - Department of Pharmacology, College of Physicians and Surgeons of Columbia University, July 1970 - June 1972

Academic Appointments

Assistant Instructor of Medicine - Albert Einstein College of Medicine, Bronx, New York, July 1969 - June 1970

Associate, Department of Pharmacology, College of Physicians and Surgeons of Columbia University, New York, New York, July 1972 - 1973

Assistant Professor of Pharmacology, College of Physicians and Surgeons of Columbia University, New York, New York, July 1973 - 1975

Assistant Professor of Pharmacology and Pediatrics, College of Physicians and Surgeons of Columbia University, New York, New York, July 1975 - 1976

Associate Professor of Pharmacology and Pediatrics, College of Physicians and Surgeons of Columbia University, New York, New York, July 1976 - 1981

Professor of Pharmacology and Pediatrics, College of Physicians and Surgeons of Columbia University, New York, New York, July 1981 -

Head, Division of Developmental Pharmacology, 1981 -

Gustavus A. Pfeiffer Professor of Pharmacology, Columbia University, New York, New York, July 1991 -

Professor of Basic Medicine: Moscow State University, Moscow, Russia, 1993-1998

Director, Center for Molecular Therapeutics, 2000 -

Adjunct Professor of Physiology and Biophysics, SUNY Stony Brook, 2000 -

Hospital Appointments

Internist, Department of Internal Medicine, USAF Hospital, Beale AFB, California, August 1966 - August 1968

Assistant Visiting Physician, Division of Cardiology, Harlem Hospital, New York, New York, July 1972 -

Assistant Physician, Presbyterian Hospital, New York, New York, July 1975 - 1976

Associate Attending Physician, Presbyterian Hospital, New York, July 1976 - 1981

Attending Pediatrician in Pediatric Service, Presbyterian Hospital, New York, NY, July 1981 - 2002

Columbia University Committees:

Pharmacology Executive Committee, 1976-

Head, Biosafety Committee, 1986-1989

Institutional Safety Committee, 1986 - 1989

Faculty Council, 1987 - 1992

Executive Committee of Faculty Council, 1988 - 1992

Committee on Appointments and Promotions, 1987 - 1990

Chairman, Committee on Appointments and Promotions; 1989 - 1990

Standing Committee on the Conduct of Science; 1990-1991

Member and/or Chairman, Ad Hoc Committees on Departmental Review, on Tenured Appointments and on Institutional Search Committees

Member, Columbia University Senate; 1992 - 1997

Member, Columbia University Education Committee; 1992 - 1997

Member, Columbia University Executive Committee; 1995 - 1997

Qualification

Diplomate, American Board of Internal Medicine, 1971

Military Service

USAF, Beale AFB, California, 1966 - 1968

Grants

New York Tuberculosis and Health Association Grant for evaluation of epidemiology of tuberculosis in Ibadan, Nigeria, 1963

State University of New York, Downstate Medical Center, Grant for evaluation of epidemiology of tuberculosis in Ibadan, Nigeria, 1963

Senior Investigator, New York Heart Association, 1972 - 1975

Grants continued:

Research Fellow, John Polachek Foundation, July 1973 - June 1974

Pediatric Cardiac Electrophysiology and Pharmacology (NHLBI Grant HL-17766), February 1975 - 1977

Electrophysiology and Pharmacology of Pediatric Cardiac Arrhythmias and Sudden Death (Irma T. Hirschl Trust), 1975 - 1979

New York Heart Association Research Grant, 1975 - 1977

Principal Investigator, Mission VII of NHLBI Grant HL-12738, Physiologic Pharmacology and its Clinical Applications, 1977 - 1983

Principal Investigator, New York Heart Grant "Heart and Nerve Cell Cultures: Physiology and Arrhythmias," 1978 - 1980

Principal Investigator, USPHS-NHLBI Grant HL-23358 "Age-related changes in cardiac autonomic interactions," 1979 - 1983

Participating Laboratory, New York Heart Association, 1977 - 1981

Principal Investigator, USPHS-NHLBI Grant HL-28223, "Triggered activity and cardiac arrhythmias," 1982 - 1990

Co-principal Investigator, USPHS-NHLBI Program Project Grant: HL-33727; "Lethal Arrhythmias: Mechanisms and Prevention," 1985 - 1989

Principal Investigator, Glaxo Cardiovascular Discovery Grant: "New Therapeutic Approaches to Neurally-Modulated Arrhythmias," 1989 - 1992

Principal Investigator, USPHS-NHLBI Grant: HL-43731; "Neurohumors, Arrhythmias and Diagnosis," 1990 - 1997

Principal Investigator, USPHS-NHLBI Training Grant: HL-07271; "Cardiac Arrhythmias: Mechanisms and Treatment," 1992 - 2001

Principal Investigator, Helopharm: Electrophysiology laboratory: 1993 -1998

Principal Investigator, Grant from Procter and Gamble: "The acute effects of gonadal steroids (estrogen and progesterone) on the electrophysiological properties of cardiac tissues," 1995-1999

Grants continued:

Principal Investigator, Grant from the Wild Wings Foundation: "Project on Sudden Death," 1996 -1999; Bawd Foundation 1999-2000

Principal Investigator, USPHS-NHLBI Grant HL-53956; "Electrical Remodeling, Repolarization & Antiarrhythmics," 1997 - 2001

Co-Principal Investigator (with Ofer Binah, PhD, Technion, Haifa), US-Israel Binational Science Foundation; "Remodeling of gap junctions by activation patterns in cultured ventricular myocytes," 2000 - 2003

Principal Investigator, USPHS-NHLBI Grant HL-67449; "Atrial fibrillation: Mechanisms and Prevention," 2000 - 2004

Principal Investigator, USPHS-NHLBI Grant HL-67101; "Memory, Remodeling and Ventricular Arrhythmias," 2001 - 2011

Principal Investigator, USPHS-NHLBI Program Project Grant: HL-28958; "Developmental Approach to Cardiac Rhythms and Arrhythmias," 1983 -2008

Principal Investigator, Servier Strategic Alliance: 2001-2007

Principal Investigator, USPHS-NHLBI Grant T32 HL-076116 "Cardiovascular Development and Disease in the Young" 2004-2009

Principal investigator, Guidant grant: Stem Cells & Cardiac pacemakers; 2004-2009

Co-Principal Investigator, (with Ofer Binah, PhD, Technion, Haifa), US-Israel Binational Science Foundation Grant, 2005189 Electrophysiological & Structural remodeling by altered activation in healthy & diseased myocardium;2006-2009

Honors (Selected)

Alpha Omega Alpha, 1963
Fellow, American College of Physicians, 1973
Fellow, American College of Clinical Pharmacology, 1975
Fellow, American College of Cardiology, 1975-2004
Visiting Professor: The Rappaport Institute, Technion-Israel Institute of Technology; June-August, 1984
Honorary Member: Argentine Association of Cardiac Pharmacology; 1985 -
Honorary Regent for Life: American College of Clinical Pharmacology, 1985 -
Visiting Professor: University of Limburg, Maastricht, The Netherlands; June, 1985
Abraham Jezer Memorial Lecturer: Montefiore Hospital, New York; 1985
David Littman Memorial Lecturer: Harvard School of Medicine; 1986
William N. Creasy Visiting Professor of Clinical Pharmacology (Burroughs-Wellcome Fund):

Honors (Selected) continued:

Wayne State University; April, 1988
Visiting Professor, Cardiovascular Research Institute: University of California at San Francisco; May, 1988
David Scherf Memorial Lecturer: Lenox Hill Hospital, New York; September, 1988
Visiting Professor: University of Limburg, Maastricht, The Netherlands; October, 1989
Sterling Lecturer: SUNY, Syracuse, March 1991
Distinguished Alumnus Award: Polytechnic Preparatory C.D. School, 1991
Award of Merit: American Heart Association, 1992
Samuel Seifter, Ph.D. Award: Master Teacher in the Basic Sciences, SUNY Downstate Medical Center, 1994
Gordon Moe Memorial Lecturer: New York Heart Association, September, 1992
Visiting Lecturer: SUNY, Stony Brook, Cardiovascular Institute, February, 1995
Plenary Lecturer, British Cardiac Society, 1997
Fellow, European Society of Cardiology, 1999
Chairman's Award: American Heart Association, 2000
Ziegler Lecturer: Rappaport Institute, Technion, October, 2000
Toyomi Sano Lecturer: Japanese Society of Electrocardiology; 2001
Israel Pollack Distinguished Lecture Series, Technion, October, 2001
Founding Fellow, International Society for Heart Research, 2001
Fellow, American Heart Association, 2001
Einthoven Award; The Einthoven Foundation; Leiden, The Netherlands, 2002
Chandler McC. Brooks Seminar: SUNY Health Science Center at Brooklyn, May, 2002
International Lectureship, The Rayne Institute, London, UK, May, 2002
Landmark Lecture, International Society of Heart Research, Madison, WI, 2002
Distinguished Visiting Professor: Heart and Vascular Center, Case Western Reserve University, Cleveland, OH, December, 2002
State of the Art Lecturer: University of Cape Town, South Africa, April, 2003
Servier Bioscience Lecturer: Mas de Torrent, Spain, May, 2003
Gordon K. Moe Lecturer; Cardiac Electrophysiology Society; 2004
Distinguished Scientist Award: Heart Rhythm Society, San Francisco, CA, 2004
Leonard N. Horowitz Memorial Lecture, Philadelphia, PA 2005
Servier Distinguished lecturer; Seville, Spain, June, 2005
Distinguished Achievement Award: AHA Council on Basic Cardiovascular Sciences, 2005
Fellow of the Heart Rhythm Society, 2006
The Eighth Paul Zoll Lecture: Beth Israel-Deaconess Medical Center, Boston, MA, 2007
Ramsey Lecture in Physiology: Virginia Commonwealth University, Richmond, VA, 2007
Borun Lecturer, University of California at Los Angeles, 2007
Douglas P. Zipes Lectureship, Heart Rhythm Society, 2008

Societies

American Federation for Clinical Research
American Association for the Advancement of Science
New York Academy of Sciences
New York Heart Association
American Society for Pharmacology and Therapeutics

Societies continued:

American Geriatrics Society
Cardiac Muscle Society
International Society for Heart Research
American College of Clinical Pharmacology
American Heart Association
Cardiac Electrophysiology Society

Other Professional Activities

Editorial Positions:

Associate Editor, ***Circulation Research***; 1975 - 1981

Member, Editorial Board, ***Journal of Clinical Pharmacology***; 1981 - 1984

Member, Editorial Board, ***Circulation***; 1983 -

Member, Editorial Board, ***Journal of Molecular and Cellular Cardiology***; 1986-1989; 1994 - 1999

Associate Editor: ***Journal of Molecular and Cellular Cardiology***; 1989 - 1993

Member, Editorial Board, ***Journal of Cardiovascular Electrophysiology***; 1990 -

Member, Editorial Board, ***European Journal of Pharmacology***; 1990 - 1996

Member, Editorial Board, ***Journal of Cardiovascular Pharmacology***; 1991 - 1994

Consulting Editor: ***Cardiovascular Research***; 1992 -

Member, Editorial Board, ***Circulation Research***; 1993 - 1998

Specific Field Editor: ***Journal of Pharmacology and Experimental Therapeutics***; 1993 - 1994

Editor-in Chief (with Paul Vanhoutte): ***Journal of Cardiovascular Pharmacology***; 1994 -2007

Consulting Editor: ***Circulation Research***; 1998 –

Member, Editorial Board, ***Journal of Internal Medicine***; 2006-

Consulting Editor, ***Dialogues in Cardiovascular Medicine***, 2001-

Editorial Positions:

Editor-in-Chief: ***Journal of Cardiovascular Pharmacology,*** 2008 -

Course and Meeting Directorships:

Rosen MR, Wit AL; Course Directors: Reentrant Arrhythmias: Mechanisms, Diagnosis, Treatment; sponsored by Columbia University; November 5-7, 1973

Rosen MR, Wit AL; Course Directors: Cardioactive Drugs: Mechanisms, Pharmacokinetics and Clinical Applications: Sponsored by Columbia University and the American Heart Association; June 4-6, 1975

Rosen MR; Course Director: Selected Topics in Pharmacotherapy; presented at South Nassau Community Hospital; April-June, 1975

Rosen MR; Director: Pharmacology Journal Club: 1976 -

Rosen M, Palti Y; Co-Directors: Rappaport Institute Symposium on Lethal Arrhythmias Resulting from Myocardial Ischemia and Infarction. Haifa, Israel; March, 1988

Rosen M; Janse M; Wit A; Co-Directors: The Hoffman Symposium; Islamorada, Florida; 1990

Rosen M, Schwartz P, Janse M; Directors: Sicilian Gambit Meeting, Taormina, Sicily, 1990

Rosen M, Schwartz P, Levy S; Directors: Sicilian Gambit Meeting, Harrison, NY, October, 1993

Rosen M, Kléber A, Camm J, Janse M, Schwartz P: Directors: Sicilian Gambit Meeting, Harrison, NY, October, 1996

Rosen M: Director: Prevention of Atrial Fibrillation, Ile de Porquerolles, September, 1999

Rosen M: Director: Sicilian Gambit Meeting, Chatham, MA, October, 2000.

Bergfeldt L, Rosen M, co-Directors; 2nd Axel Key Symposium, Stockholm, Sweden; June, 2005

National Heart, Lung and Blood Institute:

Ad hoc Consultant; 1975 - 1977

Member, Cardiovascular and Pulmonary Study Section; 1977 - 1981

Member, Research Review Committee A; 1988 - 1992

Member, Joint NHLBI-Russian Ministry of Health Exchange Program in Sudden Cardiac Death; 1989 - 2003

Member, NIH Reviewers Reserve; 1992

Member, Cardiovascular B Study Section, 1994 – 1998

Recombinant DNA Advisory Committee; 2006-2007

US Food and Drug Administration
Member, Cardiotoxicity Expert Working Group of the Nonclinical Studies Subcommittee of the Advisory Committee for Pharmaceutical Science, US Food and Drug Administration, 2001 -2004

American Heart Association:

Fellow, Council on Circulation, 1978 -

Fellow, Council on Basic Science, 1985 -

Member, Scientific Sessions Program Committee, 1982 - 1991

Member, Executive Committee, Council on Basic Sciences, 1985 - 1987, 1992 -

Chairman, Program Committee, Council on Basic Sciences; 1985 - 1987

Vice Chairman, Scientific Program Committee, 1986, 1988

Chairman, Scientific Program Committee, 1988 - 1991

Member, Board of Directors; 1988 - 1991

Chairman, Task Force on Strategies to Increase Federal Funding of Research; 1990

Vice Chairman, Council on Basic Science; 1992 - 1994

Chairman, Basic Science Council Membership Committee; 1992 - 1994

American Heart Association continued:

Chairman, Basic Science Council Long Range Planning Committee; 1992 - 1994

Chairman, Basic Science Council Budget Committee; 1992 - 1994

Chairman-elect, Council on Basic Science; 1993 - 1994

Chairman, Council on Basic Science; 1994 - 1996

Chairman, Council on Basic Science Nominating Committee; 1996 - 1998

New York Heart Association:

Chairman, Research Review Committee, Northeast 5A; 1998 -1999
Member, Council on Professional Education; 1978 - 1981
Member, Board of Trustees; 1991 - 1996

Member, Executive Committee; 1991 - 1993

Chairman, Task Force on Membership; 1991 - 1992

Member, Government Affairs Committee; 1993 - 1997

American College of Cardiology:

Member, Joint American College of Cardiology/American Heart Association

Advisory Committee on Cardiovascular Drugs; 1979 - 1985

Member, Publications Committee; 1982 - 1987

Scientific Sessions Program Committee; 1983 – 1986

American College of Clinical Pharmacology:

Member, Board of Regents, 1978 - 1982

President, 1982 - 1984

Honorary Regent for Life: 1985 -

California Institute of Regenerative Medicine:

Member, Comprehensive Review Group, 2006-

Cardiac Electrophysiologic Society:
Secretary-Treasurer, 1980 - 1981

President, 1981 - 1982

Miscellaneous Activities:

Consultant for "Understanding Electrocardiography" by M. B. Conover, C.V. Mosby, St. Louis; 1980

Affiliate Member, Oklahoma Medical Research Foundation; 1984 - 1989

Consultant, Krannert Institute of Cardiology; 1987 - 1990, 1995 -

Consultant: Farmitalia, Carlo Erba; 1987 - 1989

Member, United States Pharmacopeial Advisory Panel on Cardiovascular and Renal Drugs; 1990 – 1995

Member, Scientific Advisory Committee, Rappaport Institute, Haifa, Israel; 1991 -

Member, Scientific Advisory Committee for the Ad Hoc Group for Medical Research Funding; 1991 -

Advisory Board: Genentech Access Excellence; 1993 – 1996

Patents

Vectors Encoding HCN Channels and MIRP1; US Patent # 6,783,979

Implantation of Biological Pacemaker that is Molecularly Determined; US Patent # 6,849,611.

Cardiac Remodeling; US Patent # 6,868,287 B1

PUBLICATIONS

ORIGINAL ARTICLES

1. Rosen M, Lisak R, Rubin I: Diphenylhydantoin in cardiac arrhythmias. Am J Cardiol 20:674-678, 1967.

2. Rosen M, Gelband H, Hoffman BF: Effects of phentolamine on electrophysiologic properties of isolated canine Purkinje fibers. J Pharmacol Exp Ther 179: 586-593, 1971.

3. Gelband H, Bush H, Rosen M, Myerburg R, Hoffman BF: Electrophysiologic properties of isolated preparations of human atrial myocardium. Circ Res 30: 293-300, 1972.

4. Rosen M, Gelband H, Hoffman BF: Effects of blood perfusion on electrophysiologic properties of isolated canine Purkinje fibers. Circ Res 30: 575-588, 1972.

5. Rosen M, Gelband H, Hoffman BF: Canine electrocardiographic and cardiac electrophysiologic changes induced by procaine amide. Circulation 46: 528-536, 1972.

6. Rosen MR, Gelband H, Hoffman BF: Correlation between effects of ouabain on the canine ECG and transmembrane potentials of isolated Purkinje fibers. Circulation 47: 65-71, 1973.

7. Rosen M, Gelband H, Merker C, Hoffman BF: Mechanisms of digitalis toxicity: Effects of ouabain on phase four of Purkinje fiber transmembrane potentials. Circulation 47: 681-689, 1973.

8. Rosen M, Merker C, Gelband H, Hoffman BF: Effects of procaine amide on the electrophysiologic properties of the canine ventricular conducting system. J Pharmacol Exp Ther 185: 438-446, 1973.

9. Rosen M, Gelband H: Effects of ouabain on canine Purkinje fibers in situ and perfused with blood. J Pharmacol Exp Ther 186: 336-372, 1973.

10. Rosen M, Ilvento J, Gelband H, Merker C: Effects of verapamil on electrophysiologic properties of canine cardiac Purkinje fibers. J Pharmacol Exp Ther 189:414-423, 1974.

11. Rosen M, Miura D, Danilo P: Effects of dimethyl quaternary propranolol on electrophysiological properties of canine cardiac Purkinje fibers. J Pharmacol Exp Ther 193: 209-217, 1975.

12. Rosen MR, Hordof A, Hodess A, Verosky M, Vulliemoz Y: Effects of ouabain on electrophysiologic properties of neonatal, young and adult canine cardiac Purkinje fibers. J Pharmacol Exp Ther 194: 255-263, 1975.

ORIGINAL ARTICLES CONTINUED:

13. Glicklich JE, Gaffney R, Rosen MR, Hoffman BF: Effects of AY-22, 241 (Actodigin) on electrical and mechanical activity of cardiac tissues. Eur J Pharmacol 32: 1-9, 1975.

14. Rosen MR, Merker C, Pippenger CE: The effects of lidocaine on the canine ECG and electrophysiologic properties of Purkinje fibers. Am Heart J 91: 191-202, 1976.

15. Rosen MR, Danilo P, Alonso MB, Pippenger CE: Effects of therapeutic concentrations of diphenylhydantoin on transmembrane potentials of normal and depressed Purkinje fibers. J Pharmacol Exp Ther 197: 594-604, 1976.

16. Hordof AJ, Edie R, Malm J, Hoffman BF, Rosen MR: Electrophysiologic properties and response to pharmacologic agents of fibers from diseased human atria. Circulation 54: 774-779, 1976.

17. Levy JA, Weiss RM, Dirksen ER, Rosen MR: Possible communication between murine macrophages oriented in linear tissue culture. Exp Cell Research 103: 375-385, 1977.

18. Danilo P, Hordof A, Rosen MR: Effects of disopyramide on electrophysiological properties of canine cardiac Purkinje fibers. J Pharmacol Exp Ther 201: 701-710, 1977.

19. Rosen MR, Hordof AJ, Ilvento J, Danilo P: Effects of adrenergic amines on electrophysiologic properties and automaticity of neonatal and adult canine cardiac Purkinje fibers. Circ Res 40: 390-400, 1977.

20. Miura DS, Hoffman BF, Rosen MR: The effect of extracellular potassium on the intracellular potassium ion activity and transmembrane potentials of beating canine cardiac Purkinje fibers. J Gen Physiol 69: 463-495, 1977.

21. Danilo P, Langan W, Rosen M, Hoffman B: Effects of the phenothiazine analog, EN-313 on ventricular arrhythmias in the dog. Eur J Pharmacol 45: 127-139, 1977.

22. Gelband H, Rosen MR, Myerburg R, Bush H, Bassett A, Hoffman BF: Restorative effect of epinephrine on the electrophysiologic properties of depressed human atrial tissue. J Electrocardiol 10: 313-320, 1977.

23. Weiss RM, Vulliemoz Y, Verosky M, Rosen MR, Triner L: Adenylate cyclase and phosphodiesterase activity in rabbit ureter. Invest Urology 15: 15-18, 1977.

24. Mary-Rabine L, Hordof A, Bowman FO, Malm JR, Rosen MR: α- and ∃-adrenergic effects on human atrial specialized conducting fibers. Circulation 57: 84-90, 1978.

25. Hordof A, Spotnitz A, Mary-Rabine L, Edie R, Rosen MR: The cellular electrophysiologic effects of digitalis on human atrial fibers. Circulation 57: 223-229, 1978.

ORIGINAL ARTICLES CONTINUED:

26. Mary-Rabine L, Rosen MR: Lidocaine effects on action potentials of Purkinje fibers from neonatal and adult dog. J Pharmacol Exp Ther 205:204-211, 1978.

27. Danilo P, Vulliemoz Y, Verosky M, Rosen MR: Epinephrine-induced automaticity of canine cardiac Purkinje fibers and its relationship to the adenylate cyclase adenosine 3',5'-monophosphate system. J Pharmacol Exp Ther 205:175-182, 1978.

28. Rosenfeld J, Rosen MR, Hoffman BF: Pharmacologic and behavioral effects on arrhythmias that immediately follow abrupt coronary occlusion: a canine model of sudden coronary death. Am J Cardiol 41:1075-1082, 1978.

29. Rosen MR, Mary-Rabine L, Danilo P, Hordof AJ: Alpha and ∃-adrenergic effects on cardiac arrhythmias due to automaticity. In: Alpha-Adrenergic Blockade: A New Era in Cardiovascular Medicine. E. Braunwald (ed.), Excerpta Medica/Elsevier, Princeton, l978, pp. 179-189.

30. Rosen MR, Mary-Rabine L, Hordof AJ, Danilo P: α- and ∃-adrenergic effects on cardiac automaticity. In: Neural Mechanisms in Cardiac Arrhythmias. P.J. Schwartz, A.M. Brown, A. Malliani and A. Zanchetti (eds.), Raven Press, New York, 1978, pp. 365-375.

31. Danilo P, Rosen M, Hordof A: Effects of acetylcholine on the ventricular specialized conducting system of neonatal and adult dogs. Circ Res 43: 777-784, 1978.

32. Rosen M, Reder R, Hordof A, Davies M, Danilo P: Age-related changes in Purkinje fiber action potentials of adult dogs. Circ Res 43: 931-938, 1978.

33. Miura DS, Rosen MR: The effects of ouabain on the transmembrane potentials and intracellular potassium activity of canine cardiac Purkinje fibers. Circ Res 42: 333-338, 1978.

34. Rosen T, Lin M, Spector S, Rosen M: Maternal, fetal and neonatal effects of chronic propranolol administration in the rat. J Pharmacol Exp Ther 208: 118-122, 1979

35. Mary-Rabine L, Hoffman BF, Rosen MR: Participation of slow inward current in the Purkinje fiber action potential. Am J Physiol 237(2): H204-H212, 1979.

36. Rosen MR, Hordof AJ, Reder RF, Danilo P Jr.: Age- and disease-related changes in cardiac electrophysiological properties. In: Cardiac arrhythmias, electrophysiology, diagnosis and management. O. Narula (ed.), Williams and Wilkins, Baltimore, 1979, pp. 32-39.

37. Rosen MR, Danilo P: Effects of tetrodotoxin, lidocaine, verapamil and AHR-2666 on ouabain-induced delayed afterdepolarizations in canine Purkinje fibers. Circ Res 46:117-124, 1980.

ORIGINAL ARTICLES CONTINUED:

38. Rosen MR, Fisch C, Hoffman BF, Danilo P, Lovelace DE, Knoebel SB: Can accelerated atrioventricular junctional escape rhythms be explained by delayed afterdepolarizations? Am J Cardiol 45: 1272-1284, 1980.

39. Lau YH, Robinson RB, Rosen MR, Bilezikian JP: Subclassification of ∃-adrenergic receptors in cultured rat cardiac myoblasts and fibroblasts. Circ Res 47: 41-48, 1980.

40. Reder RF, Danilo P, Rosen MR: Effects of Pirmenol HCl on electrophysiologic properties of cardiac Purkinje fibers. Eur J Pharmacol 61: 321-333, 1980.

41. Mary-Rabine L, Hordof A, Danilo P, Malm J, Rosen M: Mechanisms for impulse initiation in isolated human atrial fibers. Circ Res 47: 267-277, 1980.

42. Danilo P, Hordof A, Reder R, Rosen M: Effects of verapamil on electrophysiologic properties of blood-superfused cardiac Purkinje fibers. J Pharmacol Exp Ther 213: 222-227, 1980.

43. Reder R, Miura D, Danilo P, Rosen M: The electrophysiological properties of normal neonatal and adult canine cardiac Purkinje fibers. Circ Res 48: 658-668, 1981.

44. Rosen MR, Legato M, Weiss RM: Developmental changes in impulse conduction in the canine heart. Am J Physiol 240: H546-H554, 1981.

45. Levi R, Malm JR, Bowman FO, Rosen MR: The arrhythmogenic actions of histamine on human atrial fibers. Circ Res 49: 545-550, 1981.

46. Dangman KH, Danilo P, Hordof AJ, Mary-Rabine L, Reder R, Rosen MR: Electrophysiologic characteristics of human ventricular and Purkinje fibers. Circulation 65: 362-368, 1982.

47. Hordof AJ, Rose E, Danilo P, Jr., Rosen MR: α- and ∃-adrenergic effects of epinephrine on ventricular pacemakers in dogs. Am J Physiol 242: H677-H682, 1982.

48. Ilvento J, Provet J, Danilo P, Rosen MR: Fast and slow idioventricular rhythms in the canine heart: A study of their mechanism using antiarrhythmic drugs and electrophysiologic testing. Am J Cardiol 49: 1909-1916, 1982.

49. Rosen M, Bowman F, Mary-Rabine L: Atrial fibrillation: the relationship between cellular electrophysiologic and clinical data. In: Atrial Fibrillation. H. Kulbertus, B. Olsson, M. Schlepper (eds.), AB Hassle; Molndal, Sweden,1982; pp. 62-69.

50. Hewett K, Vulliemoz Y, Rosen MR: Senescence-related changes in the responsiveness to ouabain of canine Purkinje fibers. J Pharmacol Exp Ther 223: 153-156, 1982.

ORIGINAL ARTICLES CONTINUED:

51. Gessman L, Danilo P, Rosen MR: An electrophysiologic study of the digoxin-quinidine interaction. J Clin Pharmacol 23: 16-23, 1983.

52. Mary-Rabine L, Albert A, Hordof A, Fenoglio J, Malm J, Rosen MR: The relationship of human atrial cellular electrophysiology to clinical function and ultrastructure. Circ Res 52: 188-199, 1983.

53. Rosen MR, Danilo P, Weiss RM: Actions of adenosine on normal and abnormal impulse initiation in canine ventricle. Am J Physiol 244: H715-H721, 1983.

54. Binah O, Legato MJ, Danilo P, Rosen MR: Developmental changes in the cardiac effects of amrinone in the dog. Circ Res 52: 747-752, 1983.

55. Binah O, Rosen MR: Developmental changes in the interactions of amrinone and ouabain in canine ventricular muscle. Dev Pharmacol Ther 6: 333-346, 1983.

56. Binah O, Cohen IS, Rosen MR: The effects of adriamycin on normal and ouabain-toxic canine Purkinje and ventricular muscle fibers. Circ Res 53: 655-662, 1983.

57. Hewett K, Gessman L, Rosen MR: Effects of procainamide, quinidine and ethmozin on delayed afterdepolarizations. Eur J Pharmacol 96: 21-28, 1983.

58. Rosen MR: The relationship of delayed afterdepolarizations to arrhythmias in the intact heart. PACE 6: 1151-1156, 1983.

59. Moak JP, Rosen MR: Induction and termination of triggered activity by pacing in isolated canine Purkinje fibers. Circulation 69: 149-162, 1984.

60. Untereker W, Danilo P, Rosen MR: Developmental changes in action potential duration, refractoriness, and conduction in the canine ventricular conducting system. Ped Res 18: 53-58, 1984.

61. Reder R, Danilo P, Rosen MR: Developmental changes in ∀-adrenergic effects on canine Purkinje fiber automaticity. Dev Pharmacol Ther 7: 94-108, 1984.

62. Hewett KW, Rosen MR: α- and ∃-adrenergic interactions with ouabain-induced delayed afterdepolarizations. J Pharmacol Exp Ther 229: 188-192, 1984.

63. Damiano BP, Rosen MR: Effects of pacing on triggered activity induced by early afterdepolarizations. Circulation 69: 1013-1025, 1984.

64. Morikawa Y, Rosen MR: Developmental changes in the effects of lidocaine on the electrophysiological properties of canine Purkinje fibers. Circ Res 55: 633-641, 1984.

ORIGINAL ARTICLES CONTINUED:

65. Rosen MR, Weiss R, Danilo P, Jr.: Effect of ∀-adrenergic agonists and blockers on Purkinje fiber transmembrane potentials and automaticity in the dog. J Pharmacol Exp Ther 231: 566-571, 1984.

66. Damiano BP, le Marec H, Rosen MR: Electrophysiologic effects of AHR 10718 on isolated cardiac tissues. Eur J Pharmacol 108: 243-255, 1985.

67. Vulliemoz Y, Verosky M, Rosen M, Triner L: Developmental changes in adenylate cyclase activity in canine myocardium. Dev Pharmacol Ther 7: 409-421, 1984.

68. le Marec H, Dangman K, Danilo P, Rosen M: An evaluation of automaticity and triggered activity in the canine heart one to four days after myocardial infarction. Circulation 71: 1224-1236, 1985.

69. Morikawa Y, Meiri H, Spinelli W, Rosen MR, Robinson R: Modification of V_{max} of canine cardiac Purkinje fibers and the effects of lidocaine by SC-72-14. Circ Res 57:354-362, 1985.

70. Drugge E, Rosen MR, Robinson R: Neuronal regulation of the development of the alpha-adrenergic chronotropic response in the rat heart. Circ Res 57:415-423, 1985.

71. Hewett K, Rosen MR: Developmental changes in the rabbit sinus node action potential and its response to adrenergic agonists. J Pharmacol Exp Ther 235:308-312, 1985.

72. Binah O, Sodowick B, Vulliemoz Y, Danilo P, Rosen MR: The inotropic effects of amrinone and milrinone on neonatal and young canine cardiac muscle. Circulation 73: (Suppl III), III-46-51, 1986.

73. Kieval R, Johnson N, Rosen M: Triggered activity as a cause of bigeminy. J Am Coll Cardiol 8: 644-647, 1986.

74. Morikawa Y, Rosen MR: Effects of quinidine on the transmembrane potentials of young and adult canine cardiac Purkinje fibers. J Pharmacol Exp Ther 236: 832-837, 1986.

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